

REMARKS/ARGUMENTS

Review and reconsideration of the application are requested in view of the foregoing amendment and the following discussion.

Claims 7, 9, 11, 13, 14 and 16-27 remain in this application. Claims 1-6, 8, 10, 12 and 15 were previously canceled. With this amendment, claims 7, 16, 22 and 26 are being amended.

Claims 7, 9, 11, 13, 14 and 16-27 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite as a result of typographical errors in claims 7 and 22. Claims 7, 22 and 26 have been amended accordingly to correct the typographical errors. Therefore, applicant respectfully requests that the rejection under 35 U.S.C. §112 be withdrawn.

The Office has maintained the rejection of claims 7, 9, 11, 13, 14 and 16-27 as being unpatentable over Nokubi et al. in view of Kitajima et al. and Kimura et al. Applicants vigorously traverse this rejection because the Office has failed to carry its burden of establishing a *prima facie* case of obviousness. Applicants submit that the Kitajima et al. and Kimura et al. references are directed to non-analogous art and, furthermore, even if combinable with the Nokubi et al. reference, there is insufficient motivation or suggestion for combining the references so as to arrive at the present invention. Therefore, the rejection should be withdrawn.

Although the Office action acknowledges that Nokubi et al. fail to disclose or suggest a polishing layer comprising a flexible layer formed on the surface of the core, the Examiner relies on the disclosures in the remaining two references for supplying this missing element of the claims. Claims of the present application are directed to an abrasive material for spray application wherein the abrasive materials in the form of granules suitable for spray application. The Kimura and Kitajima references are not directed to abrasive materials for spray application and, although the references are directed to materials containing abrasive particles, they are not in the same field of endeavor as the present invention. To be considered analogous art, the reference must satisfy the following tests: “(1) Whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor’s endeavor, whether the reference is still reasonably pertinent to the particular problem with which the inventor is involved.” *In re Clay*, 966 F.2d 656, 658-59 (Fed. Cir. 1992).

Kimura and Kitajima are not from the same field of endeavor as the present invention. Kitajima is directed to a grinding wheel for use in a grinding machine. The grinding wheel is not granular and provides absolutely no teaching that would be relevant to the production of granular, abrasive materials for use in spray applications. Likewise, Kimura is directed to a polishing-sheet material useful in the polishing of silicone wafers. The polishing-sheet material is not granular and does not relate at all to abrasive materials suitable for spray applications. Even though the present invention and the two references all relate to materials containing abrasive particles, this does not put the cited references in the same field of endeavor as the present invention. *In re Clay*, 966 F.2d at 659 (“However, Sydansk cannot be considered to be within Clay’s field of endeavor merely because both relate to the petroleum industry”).

Even though the cited references are not in the same field of endeavor as the present invention, they may be considered analogous art if they are found to be reasonably pertinent in a particular problem with which the applicants are involved. To be “reasonably pertinent”, the reference must be “one which, because of the matter with which it deals, logically would have commended itself to an inventor’s intention in considering his problem.” *In re Clay*, 966 F.2d at 659.

Neither reference is reasonably pertinent to the particular problem with which the applicants are involved. The problem confronted by the applicant was how to provide flexibility to the abrasive material without requiring that the core itself be flexible. As indicated at page 2, lines 6-11 of the present application, the flexible layer of the abrasive material provides the flexibility conventionally required of the core. The flexible layer allows the abrasive material to slide on the work surface by absorbing the impact when the abrasive material strikes the work surface. By contrast, Kimura and Kitajima were confronted with completely unrelated problems and provide no guidance with respect to the problem addressed by the applicant. A person having ordinary skill in the art would not reasonably have expected to solve the problem of flexibility of a sprayed abrasive material by considering references dealing with polishing sheets and grinding wheels. Accordingly, Kitajima and Kimura are not reasonably pertinent to the particular problem with which the applicants were involved and, as such, are not analogous art thereby making the Section 103 rejection improper.

Even assuming for the sake of argument that Kimura and Kitajima are found to be analogous art, applicants submit that one of ordinary skill in the art would not have been motivated to modify the abrasive material of Nokubi so as to arrive at the present invention based on any teaching or suggestion in Kitajima and/or Kimura. The Examiner indicates that it would have been obvious to combine the teachings of the cited references to arrive at the present invention and argues that the motivation to combine is to “retain the abrasive particles on the core during polishing process.” Office Action page 3. The Examiner’s conclusory statements fail to adequately address the issue of motivation to combine these references. The Examiner has simply pulled together the missing pieces of the invention from unrelated prior art to reconstruct the claimed invention based on the inventor’s disclosures. “Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.” *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). Applicants respectfully submit that the proposed motivation is insufficient to suggest modifying the Nokubi et al. structure to include a flexible synthetic resin layer as in Kimura et al. or a polishing layer including a bonding layer as disclosed in Kitajima et al. Certainly, there is nothing within any of the cited references that provides particular motivation to one of ordinary skill in the art to make the combination as proposed by the Examiner. Specifically, one of ordinary skill in the art looking at the cited references without the benefit of the applicant’s disclosure would not be motivated to modify the references in such a way so as to obtain an abrasive material as set forth in the pending claims. Therefore, applicant respectfully submits that the Office has failed to establish a *prima facie* case of obviousness and requests that the rejection under 35 U.S.C. §103 be withdrawn.

Claims 11 and 13 are considered to be separately patentable because the prior art references fail to disclose or suggest a polishing layer comprising multiple layers. The Examiner indicates that it would have been obvious to modify the apparatus of Nokubi et al. with a polishing layer comprising multiple layers so as to have sufficient resiliency. However, the abrasive material described by Nokubi et al. depends on the carrier for its resiliency and not the polishing layer. Therefore, there is no motivation or suggestion in Nokubi et al. that the use of

multiple layers would be desirable. Therefore, for at least this reason as well, applicant submits that claims 11 and 13 patentable over the prior art of record.

Likewise, the Office has failed to establish a *prima facie* case of obviousness with respect to claims 14, 16, 17 and 18. These claims recite that the flexible layer includes an emulsion adhesive. Nokubi et al. fail to disclose or suggest the use of an emulsion adhesive as part of a flexible layer for attaching abrasive particles onto the abrasive material. Again, the Examiner's argument, that the use of a known material for the intended use is a matter of obvious design choice, fails to meet the burden of establishing a *prima facie* case of obviousness. The Examiner has failed to provide any indication as to why one of ordinary skill in the art would use an emulsion adhesive for this particular application. The mere fact that an emulsion adhesive can be used to secure abrasive particles is insufficient. Applicants respectfully request that the rejection of these claims be withdrawn.

With respect to claims 20, 21 and 24, the Examiner indicates that it would have been obvious to one having ordinary skill in the art to provide abrasive particles having a core ranging in size from about 50 microns to 5 millimeters. The claimed core sizes for the abrasive material provide further evidence that the Kimura and Kitajima references are not properly combinable with Nokubi. By further limiting the abrasive material when the core is of the specified size, these claims clearly demonstrate that the disclosures in Kimura and Kitajima are simply irrelevant to the present application. Therefore, for at least these reasons, claims 20, 21 and 24 are patentable over the prior art of record.

Claims 22 and 25 are patentable for the same reasons as set forth above with respect to claim 7. Specifically, there is absolutely no teaching or suggestion that would motivate one of ordinary skill in the art to modify the teachings of Nokubi et al. based on any disclosure in Kimura and/or Kitajima to arrive at the present invention. Therefore, applicants respectfully request that the rejection be withdrawn with respect to these claims as well.

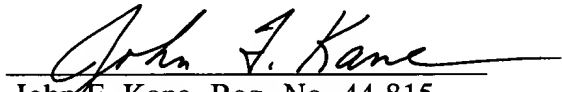
Claim 7 has been amended to clarify that the core is granular and the synthetic foam resin has elasticity. Support for claim 7 as amended can be found in Fig. 1 and Fig. 2 of the application as filed and at page 4, lines 19-21.

In view of the foregoing, it is respectfully submitted that the claims currently pending are distinguishable from the references cited and are in condition for allowance. Reconsideration of

Application No. 09/691,017
Docket No. 550718-077
Reply to Office Action of December 10, 2004
Page 8

the rejections of record is respectfully requested. If the Examiner wishes to discuss any aspect of this response, please contact the undersigned at the telephone number indicated below.

Respectfully submitted,


John F. Kane, Reg. No. 44,815

THOMPSON HINE LLP
2000 Courthouse Plaza NE
10 West Second Street
Dayton, Ohio 45402-1758
(937) 443-6816

#388565